

Application No: 10/539,839
Amendment A
Reply to Office Action Dated 08/20/2007

Attorney Docket No: 3926.163

REMARKS

Claims 1-15 are now pending in the application. Claims 1-3 and 5-7 have been amended.
Claims 9-15 have been added.

Claim Rejections - 35 U.S.C. § 103

Claims 1-8 have been rejected under 35 USC 103(a) as being unpatentable over Abel et al. (US 6,803,574 B2).

The present invention concerns a method for detecting surroundings by means of an automotive night vision system, which overcomes the drawback of the prior art night vision systems, namely leading the driver to drive faster than it is possible without a night vision system (see paragraphs [0005] and [0006] of the specification). The system of the present invention comprises a number of areas including a detection area in which the night vision system is sensitive to invisible IR radiation and an area of representation, the data detected in which is represented to the driver on an optical display. The area of representation is restricted to comprise at most the light cone of the vehicle high beam area. As a result, the display shows the driver only those data relating to the surrounding that he would see on activation of the conventional high beam anyway (see paragraph [0008] of the specification).

The claims of the instant application have been modified to even more clearly define the present invention. Independent claim 1 now recites:

A method for detecting surroundings by means of an automotive night vision system of a vehicle having a high beam headlight illuminating a high beam area and a low beam headlight illuminating a low beam area, the method comprising:

dividing the area covered by the system into several areas, including
a detection area, wherein the night vision system is sensitive at least to optical

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radiation in the IR wavelength region and detects data relating to the surroundings, and an area of representation, wherein information from the data relating to the surroundings detected by the night vision system is represented optically to the driver by means of a display device,
restricting the area of representation to comprise at most the high beam area of the vehicle.

Abel discloses a night vision device including a radiation device for generating infrared radiation, a detection device for receiving an infrared image and a display device for visual display of the infrared image for the vehicle driver. The radiation device has a semiconductor display source that can be controlled such that the infrared radiation is emitted in a discrete-time fashion. See the abstract. This can realize a higher power impulse and thus higher detection ranges. At the same time, the mean radiated power is minimized, which contributes to eye safety. It is especially advantageous as it provides an expanded visual field (see column 1, lines 33-36). In summary, the device described by Abel has the object to achieve a as large as possible detection range.

However, Abel does not describe in which area should an evaluation take place and the relationship between the evaluation area and the area of representation. Abel does not disclose that the area of representation should be restricted and especially does not disclose that the area of representation should be restricted to comprise at most the high beam area of the vehicle. In other words, in Abel the entire area detected by the system would be represented to the driver on the display device. In contrast, in the present invention, only selected area of the entire detected area is displayed. As can be clearly seen in Figs. 1-4, some of the detection area 3 or low beam area 1 is not represented.

Abel discloses in column 3, lines 19-21 that the night vision device 20 can be additionally switched on to enlarge the visual field 10, in particular so that the depth of the visual field 10 is

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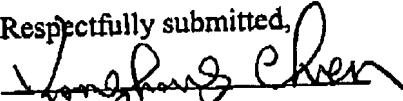
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extended. Although in Abel the enlarged area may indeed include most of the high beam area, the concept of restricting the area of representation to comprise at most the high beam area of the vehicle is not disclosed by Abel because in Abel no restricting step is performed and the enlarged area would be represented even if it does not comprise at most the high beam area. For example, the enlarged area could include an infrared detection area larger than the visual field 10, yet the entire enlarged area would still be displayed.

Claim 1 is, therefore, believed to be patentable over the cited prior art and since all dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

New claims 9-15 have been added to recite further aspects of the present invention (see paragraphs [00012] and [00010] of the specification). Claims 9-15 are believed to be patentable as well because they are ultimately dependent on claim 1.

Favorable consideration and early issuance of the Notice of Allowance are respectfully requested. Should further issues remain prior to allowance, the Examiner is respectfully requested to contact the undersigned at the indicated telephone number.

Respectfully submitted,


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